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L E T T E R

T O

Sir JOHN SINCLAIR, Bart.

CONCERNING THE VIRTUES OF

THE MURIATIC ACID.

Price ONE SHILLING.



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T O
SIR JOHN SINCLAIR, BAR^T

CONCERNING THE VIRTUES OF
THE MURIATIC ACID,
O R
SPIRIT OF SEA-SALT,

In the Cure of PUTRID DISEASES.

By SIR *WILLIAM* FORDYCE, M.D. F.R.S.

L O N D O N :

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M, DCC, XC.

Nihil magis igitur interesse salutis hominum puto, quam ut
per manus Medicorum nova indies detegantur remedio-
rum genera, vel jam detecta solidis observationum præ-
ceptis efficacius muniantur.

BACLIVI *Oper. Lib. II. § 2.*



(iii)

TO THE

RIGHT HONOURABLE

The EARL of *BUTE*.

MY LORD,

YOUR Lordship's zeal and liberality in patronizing every discovery, or attempt, which may conduce to the promotion of the sciences and arts, or tend to add to the happiness or embellishment of life, have been readily acknowledged, both at home and abroad, Nor is this declaration the language of flattery, or compliment, but the honest dictate of truth and justice.

The generous confidence with which your Lordship has honoured me, when

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either your own health, or that of your family, has been concerned; and particularly in your last malignant fever, first encouraged me to publish my New Enquiry into the Causes, Symptoms, and Cure of Putrid and Inflammatory Fevers; wherein I endeavoured to lay down such rules for distinguishing the one species from the other, as to determine with clearness the mode of treatment, whether by the antiseptic, or the antiphlogistic plan.

In pursuing the same track, from which I have never seen reason to deviate, but on the contrary more and more reason to persevere in it, I was led to examine with closer attention the powers of the Muriatic Acid, or Spirit of Sea-salt, in putrid diseases, and especially in those that approach nearest to the Plague: I mean the petechial, camp, and jail distempers, as well

well as the malignant fore-throat, so frequently fatal in this country.

The devastation which the Plague not long since occasioned at Moscow and its neighbourhood, awakened, as your Lordship knows, at the Court of Russia, a spirit of research into the history of that dreadful disease, together with a strict investigation of the probable utility of every method by which its poison might be corrected, or its contagion circumscribed. That the Muriatic Acid, which I have found beyond comparison the most efficacious medicine hitherto used for stopping the progress of the putrid disorders before mentioned, is likely to prove the best in this last distemper (the most cruel and calamitous of all others), I am, from the similarity of their symptoms, deeply persuaded.

My ideas on the subject I was some time ago prompted, by the very ingenious and
intelligent

intelligent Sir John Sinclair, Baronet, to communicate in a letter addressed to him, for the perusal of Prince Potemkin, at Petersburg, by whose favour I was furnished with every publication of that country treating of the Plague.

The interest, My Lord, which you take in every thing connected with the advancement of knowledge, and the welfare of mankind, united to the wish your Lordship has often expressed, that I would lay my experience and observations on these points before the public, has emboldened me to prefix your name to this little performance.

I willingly embrace the same opportunity to reprint the letter of your Reverend Son, on the subject of the Small-pox, that his philanthropy in promoting the blessed practice of inoculation, so happily successful in
his

his very extensive parish, and so highly becoming his character, may excite imitation.

I am,

MY LORD,

Your Lordship's most obliged,

And faithful Servant,

WILLIAM FORDYCE.

*George-street, Hanover-square,
June 1st, 1790.*

DEAR SIR JOHN,

I HAVE perused with particular attention, and equal pleasure, the works of Dr. Samoilowitz, which you were so kind as to put into my hands some time ago, upon the Plague that happened at Moscow and its neighbourhood, in the year 1778.

I am highly flattered by your having communicated to Prince Potemkin, what I had mentioned to you of the striking effects produced by the spirit of *sea-salt* in all our putrid diseases of the worst kind: I mean the Eruptive Fevers, the Petechial Fever, the Jail-distemper, and the Malignant Sore-throat; the diseases of which class resemble very much, in their symptoms, the Plague of Moscow, described with such accuracy by

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the learned and ingenious Physician above named.

If any ideas which I could suggest on this subject, might lead to the discovery of a medicine powerful enough to operate as a preventive of so dreadful a disease, or at least to diminish the apprehension of its being so fatal as it has hitherto proved; I should esteem it the happiest event of my life.

When I devoted myself to the study of physic as far back as the year 1743, there prevailed at Uppingham in Rutlandshire, and the neighbouring villages, a malignant sort of Small-pox, which justly alarmed that part of the country, insomuch that every medical practitioner, who looked after the infected, was precluded from visiting patients in other diseases; by which means those in that distemper came to be totally deserted.

deserted. In this calamity the overseers of ten or twelve adjacent parishes solicited from me such physical aids as I was capable of giving. From a careful perusal of Dr. Sydenham on the Small-pox, joined to the daily instructions I received from a favourite pupil of the immortal Boerhaave, I proceeded to take the best care I could of my new patients.

I soon discovered in what cases the antiseptic medicines, as oxymel, cream of tartar, lemon juice, the vitriolic and nitrous acids, with wine and opiates, were likely to be necessary or useful; and under what circumstances recourse was to be had to the lancet, and the antiphlogistic regimen.

From that period to the present, I have been naturally curious to examine the works of such writers, whether ancient or modern, as might be able to furnish me with inform-

ation concerning malignant diseases, the most to be dreaded, and the most difficult to cure.

Excepting the boils and emerods recorded in the Old Testament, I have not met with an account of any distemper that could with propriety be termed pestilential before the age of Hippocrates, the father of physic; who describes an endemic to which he gives that name, and in which he mentions a variety of symptoms nearly allied to those of putrid diseases in our time, but not specifically characteristic of the Pestilence. Nor does the Plague of Athens, as represented by Thucydides, who was himself infected by it, and whose narrative is the best I have found in any ancient author, sufficiently resemble the Plague of London, Marseilles, or Moscow, to justify a comparison between them. In short, no history of the symptoms or cure of the Pest, in the true sense of that word, has been transmitted to us, as far as
I can

I can recollect, which could authorize or lead to a plan for preventing so formidable a malady, or for nipping it in the bud when it begins to appear:—a circumstance that reflects double honour on the accomplished and magnanimous Empress of the North, for the directions she gave on the breaking out of the Plague at Moscow, of which the particulars have been described by Dr. Samoïlowitz, with a precision that renders of little moment all that had hitherto been written on the pestilence in general.

His valuable work comes recommended by this peculiar advantage; that he describes the disease in all its stages from his own experience as well as observation, having voluntarily taken up his abode in one hospital after another, for the benevolent purpose of receiving and attending the infected, from the first appearance of that most alarming disease; though he was not ignorant that
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the very touch of those unfortunate persons, or of any thing that had touched them, was fatal, unless where they, like him, had gone through its different stages.

So far did his humanity, heroism, and love of his country, carry that amiable man. How superior to those names that have been often so loudly, though so unjustly, celebrated for their achievements in the destruction of millions !

What remains here is to point out, if possible, some simple, easy, and rational method of putting the human body, where the disease in question prevails, into such a state, as shall probably guard it against catching the deadly poison. That such a prophylactic may be found in the *muriatic acid*, or the *concentrated spirit of sea-salt*, I am induced to believe for the reasons, and from the facts, which I will now subjoin.

Almost

Almost thirty years have elapsed since I heard by accident of a dry-salter, who had acquired a great reputation and a large fortune, from possessing a secret that had enabled him to send out to the Indies, and other hot countries, beef and pork, in a better state of preservation than any of the trade. As he was observed to pour into each cask a small bottle of transparent liquor, it occurred to me, that this could be no other than the *spirit of sea-salt*; and I began to wonder how a preparation, the greatest antiseptic in nature, and extracted from a material that had been in use from the beginning of time, for preserving as well as seasoning food, should have remained unemployed for the purpose of preserving from putrefaction the juices of the human body; while the nitrous and vitriolic acids had been so often used in the practice of medicine. It seemed the more surprising, now that chymistry had taught us to extract the
muriatic

muriatic acid, alike pleasant to the taste, and refreshing to the senses, at so small an expence, from a material furnished by Providence in the greatest plenty. If salt itself was found so beneficial for preventing putrefaction in animal substances, would not the extract from it operate in the same manner on our juices, with a power increased in proportion to its superior purity and strength?

About this time I attended the late Counsellor Cox, not less known for his convivial facetious qualities, than for his professional talents. I had just been anointing his ulcerated tonsils, in a malignant sore-throat, with the point of a feather, when he suddenly exclaimed, "For God's sake, " Doctor! touch me again with that sour " honey; it has done me more good than " a bottle of claret." What I used was a mixture of an ounce of mel-rose, with sixteen drops of the muriatic acid; which I
had

had been taught, by my late much-honoured friend Sir *William Duncan*, to apply as a gargle for the fore-throat.

As this acid was sold in the streets of London where the Plague raged in 1666, and had been recommended for its singular antiseptic powers, it seems odd, that in such an extremity it was not tried by any practitioners of reputation; or they were not such chymists as their posterity.

It happened indeed to be sold and recommended by an empiric, Constantine Rhodocanacides, a Greek, who called himself his Majesty's chymist, and published a pamphlet in 1664, expressly on the internal and external uses of the muriatic acid, of which he claims the honour of being the inventor; at least, he probably distilled it in a purer state than it had been done by any body before that period. He
C published

published at the same time several certificates of the great benefit that had been received from it.

In a variety of complaints he sold it as a nostrum, and calls it the Alexicacon Spirit of the World, recommending it in all cases: “ When, says he, we consider the noble
“ and universal character of sea-salt, the
“ ingenious must conclude, that a spirit
“ separated from its dregs, and presented
“ to us in its strength and vigour, cannot but be worth welcome reception.” And then he goes on to recapitulate its use externally, as well as internally; recommending it as preferable to lemon juice and vinegar, as more healthily taken mixed with water, beer, ale, cyder, or wine, and as proper for all sorts of cookery; adding, that no error can be committed in taking any quantity from ten to forty drops; and that, as a preservative, that quantity will serve.

But

But if any man be actually sick, he asserts its being a received preservative against the Plague: yet we do not find any writer concerning the Plague of London, who either at that time, or since, has mentioned its internal use. I should add, that he recommends the use of it to travellers by sea or land, in the water and putrid things that they are forced to live on. It may be taken to the amount of one hundred drops, according to the quantity of malignant symptoms, in all their drinks, and mixed with all their foods, within the twenty-four hours.

From these hints, I was led on to use it internally in all putrid fevers, and malignant diseases; and this I have done with continued success ever since, especially where I found the tongue black and dry, with a black glare on the teeth, and the worst sort of fore-throat; and it has proved, in truth, wonderfully efficacious on such occasions,

caſions, in checking the dyſcrasy of the humours, in reſtoring the vital powers, that are more or leſs broken down according to the degree of putrefaction, and in changing the petechiæ from a purple to a brown, and ſtill more diluted colour, till they become quite evaneſcent.

But now, as the worſt ſort of malignant diſeaſes known in this country are attended with ſymptoms ſtrongly reſembling thoſe of the Plague itſelf, I mean in the mode of ſeizure, the ſwelling and ulcerations in the tonſils, parotid, ſubmaxillary, and inguinal glands, with the petechiæ correſponding to the buboes, carbuncles, and other eruptions, which appear, from Dr. Samoïlowitz's deſcription, to be the eſſential characteristics of the true Peſt; I cannot help thinking, that the ſame medicine which I have found ſo often an effectual remedy for the
one,

one, would seldom fail, under proper management, to prove a powerful antidote against the other.

I might here mention a great variety of cases, to illustrate its surprising power in correcting the most putrid state of the juices; but shall confine myself to a few, which I hope will be sufficient.

The Rev. Mr. Stuart, son to the Earl of Bute, was in the year 178 taken with the usual symptoms of a putrid fever, violent head-ach, pain in his loins, sickness at his stomach, anguish about the præcordia, and extreme debility, with delirium. A vast number of the true petechiæ, purple as violets, perhaps not fewer than a thousand, made their appearance at the same time. We had immediate recourse to the muriatic acid in great abundance; giving him likewise camphor and Mindereri spirit, with
wines,

wines, pine-apples, grapes, and other ripe fruits. In the course of eight-and-forty hours, the spots were changed to a brown colour ; and in a few days more, he was left in a state of safety. I could not prevent his Noble Father from witnessing, in person, the progress of a disease that often proves dangerously infectious. His Lordship observed, with astonishment and delight, the operation of this admirable medicine. He has since repeatedly expressed an earnest wish to see its powers made public, from his conviction of its being calculated to prevent, as well as extinguish, the worst symptoms of putrid diseases.

I have often heard him mention at the same time, how sensibly he felt the salutary effects of the mel-rose, saturated with the spirit of sea-salt, applied to the tonsils by Sir William Duncan, about the year 1760, when his Lordship was seized with the malignant

lignant fore-throat, to which, at that period, so many grown people, some of them of the first rank, besides children, fell sacrifices. This was among the first instances of its external application. Its internal use had not then been known, except to the Greek chymist.

When the late Earl of Morton charged me with the care of the present Lord, while a youth labouring under the same distemper, I comforted his Lordship extremely in the hope of preserving his son, if I could have time to pickle his juices with the spirit of sea-salt; which I did very largely, and it succeeded. After this, he recommended me warmly to those of his friends who required such pickling in similar cases.

The children of Mr. Jeacock, Belton-street, Long-acre, (attended by Mr. Toosey, apothecary, in that neighbourhood) were
 seized

seized with all the worst symptoms of the malignant fore-throat. The eldest laboured under the additional one of bleeding at the nose, and from his kidneys and bowels, in great quantities, and was loaded besides with numberless petechiæ. They were recovered in the same manner, to the amazement of the father and the apothecary.

Mr. Gallini's son had the scarlet fever and the fore-throat, in the most violent manner I had ever seen; he was covered all over with petechiæ. He owed his recovery to the abundant use of the muriatic acid. He also lost his skin like a snake. It was stripped off his hands and fingers like gloves, which I carried home with me.

Mr. Barker, surgeon to the Second Regiment of Life Guards, wished me to visit a servant of Sir Henry Hamilton, who, though he had attended his lady without doors, as well

well as at supper the preceding night, was not able to stand the next day, apparently from mere weakness. Mr. Barker had found him, on examination, covered with purples, and a pulse scarcely to be felt; on which he alarmed the family. I directed the usual medicine. Our patient died in a few hours;—but I am ignorant how long the spots had been out. An earlier application, had the danger been known, would probably have saved him.

I was desired some weeks ago by Mr. Blifs, the apothecary at Hampstead, to inspect some eruptions of an uncommon kind on Master Plenderleith, who complained of such an extreme debility as gave his friends great uneasiness. I immediately discovered the symptoms of the petechial fever. Besides the usual medicines, bark, camphire, and spiritus Mindereri, he took by my directions, every twenty-four hours, to the

D amount

amount of fourscore drops of the muriatic acid, which in the course of a few days changed entirely the appearance of the purples, and left him in safety.

Having been requested, when it was too late, to look in on Miss Grace of Cornhill, I found her dangerously ill of the malignant fore-throat, with petechiæ and delirium. I directed the medicines as above mentioned. When I visited her next morning, a nurse and child were sitting on the bed; of which I expressed the highest disapprobation, from a fear of the child's catching the infection. When I returned, I found Miss Grace a corpse; and the child died the morning after. Three female servants had taken to their beds, with symptoms of the malignant fore-throat, and innumerable petechiæ. Their tonsils and parotid glands were swelled externally to an extraordinary height, and their hands up to the wrist were as purple as violets.

violets. From the quantity of bad symptoms, theirs were the very worst cases of the malignant fore-throat I have ever witnessed; yet they all recovered in the course of three weeks, by pursuing the same plan. To prevent the spreading of this disease in the family, I took every possible precaution, by ventilation and fumigation with vinegar and aromatics; which succeeded to my wish.

It were needless to quote more cases in proof of the wonderful efficacy of the muriatic acid in the most malignant diseases of this country; but it may be proper to add, that this truly antiseptic medicine has been constantly used in the hospital of the Third Regiment of Foot Guards, by Messrs. Leslie, Mearns, or Hay, for many years, with the greatest success in all putrid diseases of that regiment.

What I have most earnestly at heart is, from the detail above, to press the abundant use internally, as well as externally, of this most powerful antiseptic, for preventing infection from the Plague in countries liable to its ravages; in those, especially, where the ideas of an unavoidable destiny contribute so unhappily to its propagation and mortality.

I am, with great esteem,

Dear SIR JOHN,

Your most obedient, and

Most humble Servant,

WILLIAM FORDYCE.

ACIDUM MURIATICUM.

R Salis muriatici siccati P. libras decem,

Acidi vitriolici P. libras sex,

Aquæ P. libras quinque.

Sali adde gradatim acidum cum aqua prius mistum; tum distilla.

Hujus pondus specificum est ad pondus aquæ distillatæ ut 1,170 ad 1,000.

Pharmacop. Londin.

CONSIDERING it as of importance to the interests of humanity, that the following facts should be generally known, I gave them to the Public, about two years ago, in the European and Gentleman's Magazines. They are now reprinted, for the information of such as may not have seen them in either of those publications.

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To the Editor of the European Magazine.

George-street, Hanover-square, April 12, 1788.

SIR,

HEARING lately of the great success attending Inoculation for the Small-pox at Luton, in Bedfordshire, I was naturally led to enquire into the several particulars relative to that matter. Amongst other informations, some of them perhaps of doubtful authority, I have been favoured with the following authentic account by the Hon. and Rev. Mr. Stuart, rector of the parish. If you should judge the communication to be of sufficient importance to the public, I doubt not of your giving it a place in your Magazine; in which case it may be deemed a curiosity by some of your readers, to be informed, that Mr. Stuart is a grandson of the late Right Hon. Lady Mary Wortley Montague, who first introduced inoculation into this country.

To

TO SIR WILLIAM FORDYCE.

“SIR,

“ In answer to your letter concerning
“ the success of the inoculation at Luton,
“ I take the liberty of troubling you with
“ the following facts.

“ Towards the end of last summer, a
“ small-pox of the most malignant kind
“ prevailed at Luton. Notwithstanding
“ every care that human prudence could
“ suggest, as to cleanliness, medicine, and
“ attendance, scarcely more than half of
“ our patients survived this dreadful dis-
“ ease; and, though they were kept at some
“ distance from the town, it was found im-
“ possible to prevent the infection from
“ spreading. Alarmed at the danger, I en-
“ deavoured to overcome the prejudice and
“ fears of the people, and prevail on them
“ to

“ to be inoculated. Accordingly, in the
“ course of three days, a surgeon of the
“ neighbourhood communicated the infec-
“ tion to 928 paupers, who were judged
“ incapable of paying for themselves; and
“ soon after, to 287 more, mostly at their
“ own charge. Of these 1215, only five
“ died, and those under the age of four
“ months; as you will see by the attested
“ list which is inclosed.

“ Mean time Mr. Kirby and Mr. Chase,
“ the surgeons resident at Luton, inocu-
“ lated about 700 of the better sort with an
“ equal success.

“ Even from this statement the advan-
“ tage of inoculation is manifest; but the
“ following circumstances set this advan-
“ tage in a stronger light. Many paupers
“ have since shewed me the preparatory
“ medicines, which, notwithstanding all

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“ their

“ their promises to take, they had omitted;
 “ and the extent of the parish (it being
 “ nearly thirty-three miles in circumfe-
 “ rence) rendered it impossible to prevent
 “ their procuring strong liquors. These
 “ circumstances, that few submitted to re-
 “ gimen, and that some did not even use
 “ their medicines, which at the time in-
 “ creased my anxiety for the event, are
 “ surely convincing proofs of the little dan-
 “ ger attending inoculation.

“ On my return to Luton, I mean to
 “ recommend annual inoculations at the
 “ parish charge. This may be supported
 “ on principles of œconomy, as well as on
 “ principles of humanity. The health and
 “ safety of the people ought ever to be the
 “ supreme object of parochial management.
 “ The life of an industrious parent is ab-
 “ solutely invaluable; and he who thinks
 “ it

“ it can be rated too high, is no less igno-
“ rant of policy, than destitute of feeling.

“ For nine years that I have held the
“ living of Luton, the average number of
“ small-pox patients is 25. These at the
“ lowest computation stand the parish at
“ two guineas each, exclusive of medical
“ assistance. The disease is so apprehend-
“ ed in the country, that the nurses require
“ double pay, and both they and the pa-
“ tients are confined in an airing-house
“ several weeks after the recovery. Should
“ my plan of annual inoculations take place,
“ the expence would not amount to the
“ fifty guineas, which are now paid for
“ those who have the small-pox naturally.
“ But, alas! these fifty guineas are but a
“ small part of the real charge and incon-
“ venience produced by this dreadful ma-
“ lady. Its almost constant effect is a
“ permanent augmentation of the parish

“ expenditure. If a labourer dies, his fa-
“ mily must be supported. If a mother is
“ lost, the children must be removed to
“ a work-house, as their father cannot
“ spare time for employments that are
“ merely domestic. In a work-house they
“ lose innocence, reputation, and that sense
“ of independence which is the surest prin-
“ ciple of industry.

“ I have troubled you with these obser-
“ vations, because I am confident they are
“ applicable to more parishes than mine;
“ and because I am equally confident, that,
“ were inoculation generally practised, it
“ would lessen human misery, save many
“ a useful life, and even promote that œco-
“ nomy which many think the only object
“ worthy of attention.

“ I am, Sir,

“ Your faithful servant,

“ WILLIAM STUART.”

South Audley-street, March 1, 1788.

Copy

Copy of the attested List referred to in the preceding.

“ A child of George Road had the thrush
“ at the time of being inoculated, and sup-
“ posed to die in consequence thereof. Aged
“ 9 weeks.

“ A child of Samuel Young died with
“ the eruption on it. Aged 7 weeks.

“ A child of John Flitton died three
“ days after inoculation. Aged 12 weeks.

“ A child of John Olney died in a fit
“ the sixth day after inoculation. Aged 16
“ weeks.

“ A child of Waller died with the erup-
“ tion on it. Aged 5 weeks.

“ FRA. NASH, Churchwarden.”

Luton, Jan. 6, 1788.

FROM the circumstance of not more than two shillings being paid for inoculating each of the paupers mentioned in the foregoing letter, it appears at once, at how small an expence a great many valuable lives may be saved to the public, by a little attention on the part of the nobility, clergy, gentry, and others.

In the very desirable event of their adopting the benevolent ideas of my Honourable and Reverend Friend, I would remark, that the properest seasons of inoculation are, when the juices are least likely to be contaminated by infectious or contagious diseases, which rage most in the autumnal months; begging leave at the same time to recommend the use of from 50 to 100 drops of the concentrated spirit of sea-salt diluted in barley-water, or any other mucilaginous liquid, in the proportion of 50 drops to one quart, for preventing the juices from falling into
that

that putrid state which renders the small-pox so much more deadly.

I would farther advise an equally free use of the same spirit in every town and village through the kingdom, as a preservative against infection, as well as a great aid in curing the worst sorts of putrid fevers, which have been of late so destructive in so many parts of England.

I am, SIR,

Your most obedient servant,

WILLIAM FORDYCE.

THE HISTORY OF THE

REIGN OF

CHARLES THE FIRST

BY

JOHN BURNET

OF THE UNIVERSITY OF OXFORD

IN TWO VOLUMES

THE SECOND VOLUME

CONTAINING

THE HISTORY OF THE

REIGN OF

CHARLES THE SECOND

BY

P O S T S C R I P T.

AFTER professing to shew by what means contagious distempers may be rendered less fatal, I should not forgive myself, if I did not here join the general voice of mankind, in deploring the death of the late Mr. Howard, that hero of humanity, to whose unparalleled labours and self-denial, for the relief of the wretched in prisons and lazarettos, under the calamities of confinement, and the horrors of infection, every heart unites in paying the tribute of fervent veneration. The loss of this extraordinary man I lament the more, that, having had a proper introduction to him after he went abroad, I came too late to make him acquainted with the superior antiseptic power of the Muriatic Acid. I had actually sent a quantity of it to Mr. Baldwin, the British Consul

Consul at Grand Cairo, for his trial, and Mr. Howard's, who, unwearied by toil, and undaunted by danger, in his glorious pursuit, for so many years, had resolved to encounter the pestilential airs of Egypt, the native country of Plagues. I am even willing to flatter myself, that if, before he went to Cherson, he had known the medicine in question, it might have served, by way of preventive, to detain him a while longer on this globe, for the succour of human misery:

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THE END.

